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09/884,036	06/20/2001	Masaharu Shimada	2001_0746A	2701

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EXAMINER

BORISSOV, IGOR N

ART UNIT PAPER NUMBER

3629

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,036

Applicant(s)

SHIMADA ET AL.

Examiner

Igor Borissov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-5 have been canceled. New claims 6-17 have been added. Claims 6-17 are currently pending in the application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is not within the technological arts.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of

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whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on

whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the

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analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, the claims are completely silent with regard to technology and is purely an abstract idea or process steps that are employed completely without the use of any technology whatsoever. The independently claimed steps of: *receiving a request...*; *selecting one of a plurality of forwarders...*; *providing the selected forwarder with information...*; *instructing the selected forwarder...*; *receiving an order...*; *contacting the recycler...* are completely devoid of any means to carry out a process implementing said method steps.

The above cited limitation may be viewed, for example, as nothing more than simply choosing from Yellow pages a recycler and making a phone call to schedule the article removal. There are absolutely no limitations included in this claim that would suggest a computer or data processing device is being used to carry out the processes.

Furthermore, in accordance with MPEP 2106 (IV)(B)(2)(b) "Statutory Process Claims", not all processes are statutory under 35 U.S.C. 101. *Schrader*, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer related process must either: (A) result in a physical transformation outside the computer for which a practical

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application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application within the technological arts. See *Diamond v. Diehr*, 450 U.S. at 183-184, 209 USPQ at 6 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-788 (1877)). The claims in the present application do not appear to satisfy either of the two conditions listed above. First, the claims do not include limitations that would suggest a computer is being used to transform the data from one form to another that would place the invention in the technological arts. Second, disregarding the fact that there is no computer claimed that would physically transform the data, there does not appear to be any physical transformation of data. Thus, there neither appears to be any physical transformation of data from one form to another which is based upon an algorithm or a calculation by a computer or processor, nor is there any technology claimed that would be used to transform the data.

Because the independently claimed invention is directed to an abstract idea which does not recite a limitation in the technological arts, those claims and claims depending from them, are not permitted under 35 USC 101 as being related to non-statutory subject matter. However, in order to consider those claims in light of the prior art, examiner will assume that those claims recite statutorily permitted subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9, 11, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Embutsu et al. (US 5,960,402) (Embutsu) in view of Suzuki et al. (US 5,965,858) (Suzuki).

Embutsu teaches an information management method and system for dealing with waste and waste recycle system, comprising:

As per claims 6 and 11, an information collection/management means (a control center) for collecting information about articles to be recycled, a collection means (forwarder) for collecting the articles, a collection method determination means for controlling the collection means, a recycling facility for recycling said articles and communicating with the information collection/management means (column 5, lines 15-21); a maker who manufactures contents of reusable articles, said articles having an identification code (column 4, line 64 – column 5, line 27; column 3, lines 17-18); and a user who consumes said articles (column 4, line 64 – column 5, line 27);

wherein after the user consumes said articles, the center sends a request for collection to said forwarder; wherein in response to the request, said forwarder collects

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the consumed articles from said user and delivers them to said recycler; wherein said recycler delivers recycled articles to the maker (column 4, line 64 – column 5, line 27). Furthermore, Embutsu teaches that during the recycling process, valuable recycling parts of the article are returned for use (column 5, lines 26-27), thereby indicating the “renewing” feature. However, Embutsu does not specifically teach that the *whole article* is returned to use. Also, Embutsu does teach using a forwarder for retrieving the reusable articles (column 5, lines 15-21). However, Embutsu does not specifically teach *selecting a forwarder from a plurality of forwarders*.

Suzuki teaches a manufacturing article recycling system and method, wherein recycled articles are restored and shipped back for use (column 24, lines 5-16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu to include restoring the recycled articles and shipping them back for use, as disclosed in Suzuki, because it would advantageously allow to reuse damaged articles, thereby saving funds.

As to *selecting a forwarder from a plurality of forwarders*, it is well known to choose a service provider from a list of available service providers. For example, one can look into the Yellow Pages to select a trash removing or moving company from a list.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu in view of Suzuki to include selecting a forwarder from a plurality of forwarders, because it would advantageously

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provide users of the system with ability to choose the forwarder which is most suitable for the task.

Information as to *empty* article is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999). The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed. The method steps, disclosed in Embutsu in view of Suzuki would be performed the same regardless if the article is empty or not.

As per claim 9, Embutsu teaches said method and system, wherein the locations of said user, forwarder and recycler are indicated in terms of coordinates on a map (column 8, lines 27-34).

As per claim 13, Embutsu teaches: reading the identification code of the reusable article to determine a manufacturer of the article (column 6, lines 34-40).

As per claim 16, Embutsu teaches all the limitations of claim 16, except specifically teaching repairing the received recycled articles.

Suzuki teaches said manufacturing article recycling system and method, including repairing recycled articles (column 24, lines 6-9).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu to include repairing the received recycled articles, as disclosed in Suzuki, because it would advantageously allow to reuse damaged articles, thereby saving funds.

As per claim 15, Embutsu teaches all the limitations of claim 15, except specifically teaching cleaning the received recycled articles.

Suzuki teaches said manufacturing article recycling system and method, including cleaning means for cleaning a recycled article (column 24, line 46).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu to include cleaning the received recycled articles after said articles have been repaired, as disclosed in Suzuki, because it would advantageously allow to use repaired articles, thereby saving funds.

As per claims 14, Embutsu teaches all the limitations of claims 14, except specifically teaching receiving a report indicating that the retrieved recycled articles have been cleaned.

Suzuki teaches said manufacturing article recycling system and method, including output means for outputting results of the decision made regarding recycling of the article, said decision made by the recycle decision means (column 2, lines 20-22), thereby obviously indicating the reporting step.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu to include outputting information regarding recycling of the article as disclosed in Suzuki, because it would advantageously allow to

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keep record of recycling process, thereby enhance accuracy of the inventory management of the system.

As per claim 17, Embutsu teaches: reading the identification code of the reusable article, said code including information related to the kind, type and manufacturing data (column 6, lines 34-40). Information as to *the specific content* of the code is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Claims 7-8, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Embutsu in view of Suzuki and further in view of Shaffer et al. (US 6,748,426 B1) (Shaffer).

As per claims 7 and 12, Embutsu in view of Suzuki teach said method and system, including a database having addresses of each collection target (column 7, line 54 – column 8, line 3).

Embutsu in view of Suzuki do not specifically teach that said addresses are linked to telephone numbers of users so that address and name of each of the user can be determined when the user makes a telephone call.

Shaffer teaches a method and system for linking information in a global network, including a database, which is organized so that telephone numbers are linked to

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address and names of households, wherein a calling party identifier is captured and converted into a linkage key, such as 11-digit zip code, which is then used to retrieve associated data components from the indexed database (column 13, line 41 – column 14, line 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu in view of Suzuki to include that said addresses are linked to telephone numbers of users so that address and name of each of the user can be determined when the user makes a telephone call, as disclosed in Shaffer, because it would advantageously decrease time necessary to serve the user, thereby improve customer service.

As per claim 8, organizing database by zip code in Shaffer obviously indicate ability to locate information based on geographic (locality) bases. The motivation to combine Embutsu in view of Suzuki and Shaffer would be to advantageously decrease time necessary to serve the user, thereby improve customer service.

As per claim 10, Embutsu teaches communication means including communication network (column 3, lines 10-15).

Embutsu in view of Suzuki do not specifically teach that said communication means includes the Internet.

Shaffer teaches a method and system for linking information in a global network, wherein communication is provided across the Internet (column 2, line 13).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Embutsu in view of Suzuki to include that said communication means includes the Internet, as disclosed in Shaffer, because it would advantageously allow to use a largest existing communication network instead of investing in building a dedicated network, thereby saving funds.

Response to Arguments

Applicant's arguments filed 6/28/2004 have been fully considered but they are not persuasive.

In response to the applicant's argument that Embutsu fails to disclose instructing the recycler to deliver renewed empty reusable articles bearing identification codes to a manufacturer upon receiving an order from the manufacturer, it is noted that Embutsu teaches sending a request for collection to a forwarder, wherein in response to the request, said forwarder collects the consumed articles from said user and delivers them to said recycler, wherein said recycler delivers recycled articles to the maker (manufacturer) (column 4, line 64 – column 5, line 27). During the recycling process, valuable recycling products are returned to use (column 5, lines 26-27), thereby indicating the "renewing" feature.

Suzuki was applied to show shipping back for use the restored recycled articles (column 24, lines 5-16).

Information as to *empty* article is non-functional language and given no patentable weight. The method steps recited in the claims do not provide any indication of the functionality of this (empty) feature. Therefore, non-functional descriptive material

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cannot render non-obvious an invention that would otherwise have been obvious. See:

In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re*

Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form PTO-892).

Any inquiry concerning this communication should be directed to Igor Borissov at telephone number (703) 305-4649.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Weiss, can be reached at (703) 308- 2702.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

or faxed to:

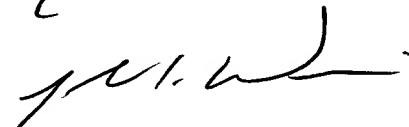
(703) 872-9306 [Official communications; including After Final
communications labeled "Box AF"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7th floor receptionist.

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9/28/2004

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SUPERVISORY PATENT EXAMINER
JOHN G. WEISS~~


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